



DT03 Rec'd USPTO 07 MAR 2005

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PATENT
8022-1080

IN THE U.S. PATENT AND TRADEMARK OFFICE

In re application of

Morio TAKAHASHI

Application No. 10/516,821

Filed December 7, 2004

THERMO-OPTIC PHASE SHIFTER AND
MANUFACTURING METHOD OF THE SAME

INFORMATION DISCLOSURE STATEMENT

MS AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

March 7, 2005

Sir:

In compliance with Rules 1.97 and 1.98, and in fulfillment of the duty of disclosure under Rule 1.56, the accompanying documents, copies of which are attached to this statement, are made of record on the enclosed sheet.

As the USPTO has waived the requirement under 37 CFR 1.98(a)(2)(i) for submitting a copy of each cited U.S. patent and patent publication for applications filed after June 30, 2003, a copy of the cited U.S. reference is not enclosed, as the present application is filed after June 30, 2003. Copies of the cited foreign patent documents and/or non-patent literature are enclosed.

A concise explanation of the relevance of these items is that these references were discovered during any searches they or their client had made, or that they were considered in the preparation of the application.

A concise description of the relevance of those references not in the English language is given on the introductory pages of the present specification.

Respectfully submitted,

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Enclosures: ☒ Form PTO-1449(s)
☒ Documents
☐ Foreign Search Report
☐ Other: _____

(Use several sheets if necessary)

Application No.:
10/516,821

Applicant: **Morio TAKAHASHI**

Filing Date:
December 7, 2004

Group Art Unit:

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No
	2001-255474	9/21/2001	JAPAN				x
	2001-222034	8/17/2001	JAPAN				x
	3204493	10/19/1999	JAPAN				X
	11-201984	7/30/1999	JAPAN				X
	3152182	4/23/1999	JAPAN				X
	2848144	5/21/1997	JAPAN				X
	9-5653	1/10/1997	JAPAN				X
	6-148536	5/27/1994	JAPAN				X
	5-34525	2/12/1993	JAPAN				X

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		Y. Hashizume et al., "Polymer-assisted silica-based thermo-optic switch", NTT Photonics Laboratories, NTT Corporation, Electron. Lett., 33, pp 194501946, 1997 (2001)
		Y. Hashizume et al., "PLC-type Variable Optical Attenuator with low polarization dependent loss", NTT Photonics Laboratories, PTL, Vol. 4, No. 1, pp. 36-38, Jan. 1992
		Y. Hida et al., "Polymer Waveguide Thermo-optic Switch with Low Electric Power Consumption at 1.3 μ m, IEEE Photonics Technology Letters, Vo. 5, No. 7, July 1993
		M. Horino et al., "Development of Prototype Micromechanical Optical Switch", JSME International Journal, Series C, Vol. 41, No. 4, 1998
		T. Kanie et al., "PLC 2x2", Sumitomo Electric Industries, Ltd., J. Microelectromechanical System, Vol. 6, pp. 277-285, 1997
		Q. Lai et al., "Low-Power Compact 2 X 2 Thermo-optic Silica-on-Silicon Waveguide Switch with Fast Response", IEEE Photonics Technology Letters, Vol. 10, No. 5, May 1998
		S. Shoma et al., "Low switching powers silica-based 1.5% delta thermo-optic switch with heat insulating trenches", NTT Photonics Laboratories, 2002
EXAMINER:		DATE CONSIDERED

Application No.:
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[illegible][illegible][illegible]

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

* Abstract provided for the Examiner's convenience